

Prediction of economic impact brought about by the increase of non-metallic mineral wastes in Japan

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Non-metallic mineral wastes accounted for a large part of industrial waste generated in Japan and they have a significant influence on the material flow of waste due to their large amount. In order to establish a recycling society, it is essential to reduce the amount of final disposal of such material and the efficient use of non-metallic mineral wastes is to be more promoted. However, lately a decrease in demand for this material is anticipated—commencing with the construction industry—and there is concern that the balance of supply and demand for non-metallic mineral circulating resources might collapse. In light of this, this study predicts the amount of final disposal of non-metallic mineral wastes and its influences to industries in the future under assumption of several social situations by using linear programming and input-output table developed for non-metallic mineral materials. Considering the empirical results, we discuss the efficient use of non-metallic mineral waste and its effect.

Keywords: non-metallic mineral waste, material flow, balance of supply-demand, linear programming, input-output table